

# How to Create a New vCloud<sup>®</sup>-based Ruby on Rails Web Application

# Contents

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## About Cloud Computing

Cloud computing is an approach to computing that pools or aggregates IT infrastructure resources. Using Infrastructure-as-a-Service (IaaS), through cloud computing, gives you a more efficient, flexible and cost-effective infrastructure. Clouds typically include a set of virtual machines (“VM”s). A virtual machine is an isolated software container that can run its own operating systems and applications as if it were a physical computer, and contains its own virtual (i.e., software-based) CPU, RAM, hard disk and network interface card (NIC). Users can start and stop Virtual Machines or use compute cycles, as needed. Clouds can be on-site (commonly referred to as ‘Private Clouds’), with a Service Provider (‘Public Cloud’), or a combination of the two (‘Hybrid Cloud’).

## What is vCloud?

VMware vCloud is a software suite that empowers enterprises to transform their existing vSphere™ infrastructure into a consumable, self-managed, web-based service. It provides a window for end-user provisioning and deployment of servers, and enables enterprises to isolate departments IT deployments to provide unique quality of service requirements to each business unit. Organizations can maintain one or many shared catalogues, so business units can quickly and easily deploy custom servers on-the-fly without the need for further IT intervention. The VMware vCloud suite is built on top of vSphere, the industry standard in virtualization technology, and carries with it the enterprise-grade quality and features that you would expect from VMware.

Overview .....	3
Features .....	4
Components & Requirements .....	5
Installation .....	6
Resources .....	15

The VMware Cloud Evaluation includes access to a host of VMware virtual appliances that leverage BitNami OS and application templates. This document focuses on getting started with Ruby on Rails, a free, open-source, full-stack web application framework. Unlimited use of the Ruby on Rails template is one of the many benefits of the VMware Cloud Evaluation.

## VMware Virtual Appliances

VMware Virtual Appliances, or vApps, are pre-packaged software solutions comprised of one or more Virtual Machines containing all necessary functionality to be easily deployed in any VMware based infrastructure, such as VMware vSphere and VMware vCloud Director.

Packaged from the BitNami Stacks program, these Virtual Appliances contain all the components that the particular Open Source application requires. For example, the virtual appliance components may include Apache, MySQL, PHP or Ruby, as well as the Linux-based operating system they are configured to run in.

Optimized for cloud computing, vApps are portable, scalable and easy to deploy, making them the perfect fit to run in your VMware Cloud Evaluation environment.

Simply deploy the vApp in your VMware Cloud Evaluation instance and you're ready to start configuring it to meet your needs. Each vApp can be customized, so please refer to the documentation for each vApp to make sure to go through all the necessary steps to setup and initialize your new Virtual Appliance.

## The Ruby on Rails Template within the VMware Cloud Evaluation

This document describes the process of deploying the Ruby on Rails template within the VMware Cloud Evaluation.

Based in the Ruby programming language, Ruby on Rails is a free, open-source, full-stack framework for database-backed web applications. Ruby on Rails application developers are able to easily gather information from the web server, querying the database and template rendering.

Ruby on Rails includes tools that make common development tasks easier and as a result allows faster development. You can learn more about Ruby on Rails at [www.RubyonRails.org](http://www.RubyonRails.org)

The Ruby on Rails vApp is a ready-to-deploy virtual machine that contains all of the runtime dependencies to get up and running quickly with minimal setup. Ruby on Rails vApp also includes ready-to-run versions of Ruby, Rails, MySQL and Subversion. Built upon the Ruby on Rails BitNami stack this vApp is distributed for free under the Apache 2.0 license.

# Features

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VMware Ready vApps are built with a few goals in mind, including:

- Ease of deployment
- Independence, agility and portability across any VMware-based infrastructure
- Scalability to meet application growth as needed
- Ability to customize to configure the vApp to suit your needs

## Ease of Deployment

VMware vApps make the process of deploying and installing a full Open Source solution incredibly easy, so you can be up and running in just a few clicks.

## Independent

VMware vApps are completely self-contained, and as a result do not interfere with any software currently deployed in your vCloud environment simplifying deployment and easing concerns of conflicts.

## Portable

VMware vApps can be migrated to new hosts, new vClouds, or exported and moved to an entirely new VMware based environment, meaning you can bring it with you when your needs change. Deploy internally to initially test, and then use VMware vCloud Connector to migrate the workload to your VMware Cloud Evaluation, or transfer it over to a full VMware Certified Public Cloud provider listed at [vcloud.vmware.com/partners/vspp](http://vcloud.vmware.com/partners/vspp)

## Scalable

When your application has outgrown its current capacity, adding more resources is as easy as a few clicks. Designed for scalability, a vApp can have more RAM or CPU allocated to it whenever you choose.

## Customizable

Since the VMware Cloud Evaluation uses templates built on popular Open Source applications, there is already a vibrant community of people who have contributed how-to guides, customization guides, themes, and add-on utilities to most of the applications the vCloud Service Evaluation offers. Everything from WordPress themes to Drupal modules are available for use and integration with your application.

# Components & Requirements

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## Components

The Ruby on Rails vApp ships with the following software versions running on Ubuntu 12.04:

- Ruby 1.9.3-p194
- RubyGems 1.8.x
- Rails 3.2.x
- ImageMagick 6.7.x
- phpMyAdmin 3.5.x
- Subversion 1.7.x
- SQLite 3.7.x
- MySQL 5.5.x
- Apache 2.2.x
- PHP 5.3.x
- phpMyAdmin 3.5.x
- Git 1.7.9.x
- Nginx 1.0.x
- Sphinx 2.0.x
- RVM 1.13.x

## Requirements

The minimum requirements to install the Ruby on Rails vApp are listed below. These minimum requirements are met when utilizing the “Standard” resource package within the VMware Cloud Evaluation.

- Intel x86 or compatible processor running ESX or ESXi
- Minimum of 512 MB of RAM dedicated to the vApp
- Minimum of 150 MB of Hard Disk space
- Valid Networking configured to the vApp

# Installation

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The Ruby on Rails vApp is distributed as an Open Virtualization Format (OVF) package. Deploying this package is simple.

1. Login to your VMware Cloud Evaluation Console at [vcloudservice.vmware.com](http://vcloudservice.vmware.com)

## Login to your Cloud

**Username & Organization:** *(Ex: admin@1234)*

**Enter your Password:**

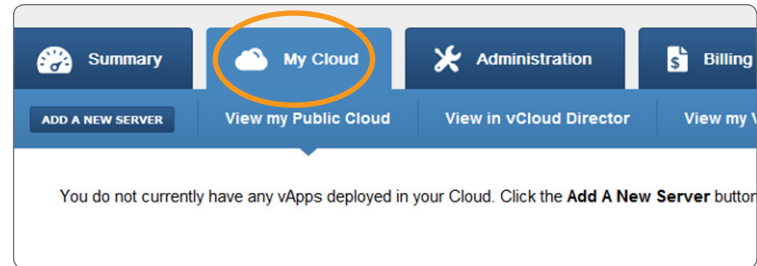
*Keep me logged into the Control Panel*

**LOGIN NOW**

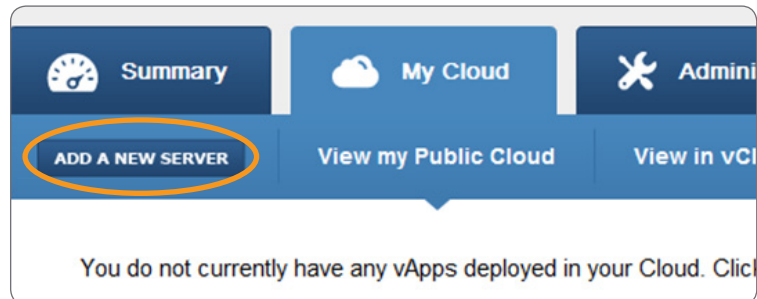
# Installation

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2. Select the “My Clouds” tab



3. Click the “Add a New Server” button



# Installation

4. A popup form will appear with all of the field information needed to create the virtual machine. Enter the name of your server in the Server Label field and select the vApp you would like the server to reside in. You can create a new vApp by selecting “Create New vApp” and entering the name of the vApp.

**Add a new Virtual Machine**

**Server Label:**

**vApp:**  ▾

**New vApp:**

[Configure Server Details](#) [Personal Templates](#)

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**Template:**  ▾

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**Resources:**   
*Select a template to view options*

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**Hard Drives:**

- Port 0: 50GB - *Primary Drive*

[Add a New Hard Drive](#)

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**Network:**  **Assign this Server an external IP address**  
 **Allow traffic for common incoming ports**  
*Incoming traffic will be allowed to ports 21, 80, 443, 3389, 5480 & 8443, otherwise we restrict all by default*

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# Installation

5. Select the “Applications” Template

**Add a new Virtual Machine**

Server Label:

vApp:  ▼

New vApp:

[Configure Server Details](#) [Personal Templates](#)

Template:   
Operating Systems  
Applications  
vSphere Utilities

Resources:

Hard Drives: 

- Port 0: 50GB - Primary Drive

[Add a New Hard Drive](#)

Network:  Assign this Server an external IP address  
 Allow traffic for common incoming ports  
*Incoming traffic will be allowed to ports 21, 80, 443, 3389, 5480 & 8443, otherwise we restrict all by default*

# Installation

6. Select “Ruby on Rails” from the next drop down list.

The screenshot shows a web form titled "Add a new Virtual Machine". At the top, there are three input fields: "Server Label:" with a text box containing "Application Name", "vApp:" with a dropdown menu set to "Create New vApp", and "New vApp:" with a text box containing "vApp Name". Below these is a tabbed interface with "Configure Server Details" selected and "Personal Templates" as an alternative. The "Template:" dropdown is open, showing a list of options: "Applications", "Drupal", "Joomla!", "LAMP", "Redmine", "Ruby on Rails" (circled in orange), "SugarCRM", "Tomcat", and "WordPress". To the left of the dropdown, the labels "Resources:" and "Hard Drives:" are visible. Below the template list, the "Network:" section has two checked checkboxes: "Assign this Server an external IP address" and "Allow traffic for common incoming ports". A note below the second checkbox reads: "Incoming traffic will be allowed to ports 21, 80, 443, 3389, 5480 & 8443, otherwise we restrict all by default". At the bottom of the form are two buttons: "ADD NEW" and "CANCEL".

# Installation

7. Use the slider to choose the amount of resource required.

**Add a new Virtual Machine**

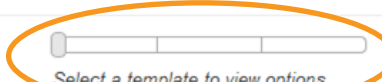
Server Label:

vApp:  ▾

New vApp:

Configure Server Details | [Personal Templates](#)

Template:  ▾  
 ▾

Resources:   
Select a template to view options

Hard Drives: 

- Port 0: 50GB - Primary Drive

[Add a New Hard Drive](#)

Network:  Assign this Server an external IP address  
 Allow traffic for common incoming ports  
*Incoming traffic will be allowed to ports 21, 80, 443, 3389, 5480 & 8443, otherwise we restrict all by default*

# Installation

8. Select “Add a New Hard Drive” and enter the amount of storage.

### Add a new Virtual Machine

Server Label:

vApp:  ▼

New vApp:

[Configure Server Details](#) [Personal Templates](#)

Template:  ▼  
 ▼

Resources:    
*Select a template to view options*

Hard Drives: 

- Port 0: 50GB - Primary Drive  
[Add a New Hard Drive](#)

Network:  Assign this Server an external IP address  
 Allow traffic for common incoming ports  
*Incoming traffic will be allowed to ports 21, 80, 443, 3389, 5480 & 8443, otherwise we restrict all by default*

# Installation

9. Check the boxes to assign your server an external IP address and allow traffic for the common incoming ports. These options can be configured or changed at a later time by going to the “View my Virtual Networks” sub-tab under My Cloud.

**Add a new Virtual Machine**

**Server Label:**

**vApp:**  ▾

**New vApp:**

**Configure Server Details** | [Personal Templates](#)

**Template:**  ▾  
 ▾

**Resources:**   
*Select a template to view options*

**Hard Drives:** • Port 0: 50GB - Primary Drive  
[Add a New Hard Drive](#)

**Network:**

- Assign this Server an external IP address**
- Allow traffic for common incoming ports**  
*Incoming traffic will be allowed to ports 21, 80, 443, 3389, 5480 & 8443, otherwise we restrict all by default*

# Installation

## 10. Click “Add New”

When your server is created it will be in a powered off state. To access your Ruby on Rails vApp select the power button and browse to the external IP address listed in the server details. More information on how to use Ruby on Rails once deployed is located on the Ruby on Rails site at: [rubyonrails.org/documentation](http://rubyonrails.org/documentation)

Once installed, you can further customize the installation by using the vCloud Director interface. Please refer to Section 8 of the vCloud Director User Guide for information on using vCloud Director to work with a vApp. Please see [vmware.com/go/vcd-userguide](http://vmware.com/go/vcd-userguide)

**Add a new Virtual Machine**

**Server Label:** Application Name

**vApp:** Create New vApp

**New vApp:** vApp Name

Configure Server Details | Personal Templates

**Template:** Applications

**Resources:**  Select a template to view options

**Hard Drives:** • Port 0: 50GB - Primary Drive  
[Add a New Hard Drive](#)

**Network:**  Assign this Server an external IP address  
 Allow traffic for common incoming ports  
Incoming traffic will be allowed to ports 21, 80, 443, 3389, 5480 & 8443, otherwise we restrict all by default

**ADD NEW** CANCEL

# Resources

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For additional information on how to customize your

Ruby on Rails vApp, visit:

[wiki.bitnami.org/Components/Ruby\\_on\\_Rails](http://wiki.bitnami.org/Components/Ruby_on_Rails)

Learn more about BitNami:

[bitnami.org](http://bitnami.org)

To find additional VMware Ready Virtual Appliances, visit the

VMware Solution Exchange:

[solutionexchange.vmware.com/store](http://solutionexchange.vmware.com/store)



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